Blue Ribbon Panel to Review the Use of Oxygenates in Gasoline

Tuesday, March 2, 1999 by John Elston

New Jersey Prospective

Conclusions

Although NJ has had a controversial history in the use of MTBE, New Jersey is here today to neither condemn nor praise MTBE usage in gasoline. Instead we urge the committee to develop a policy which weighs the benefits and disbenefits of MTBE today and adequately assess the possible changes in the future given the criteria of vehicle technology, energy policy and environmental benefits versus risk. If found that the disbenefits outweigh the benefits, the usage of MTBE should be phased down or phased-out over time. Secondly, we believe that state specific oxygenate programs at above the 2.0% level and used only in the wintertime are no longer necessary considering these criteria and therefore such programs can be terminated.

What are the benefits?

- Oxygenated gasoline effectively reduced CO in New Jersey. Air monitoring data indicated a reduction of 15% immediately and this reduction has been sustained over the years
- Acts as a petroleum fuel extender; any immediate elimination would have an effect on gasoline supply and certainly cost.

What are the disbenefits?

• Although much of the evidence is anecdotal, there is widespread belief that MTBE in levels breathed in areas of congestion or at gasoline stations causing acute public health effects.

History of MTBE in New Jersey

- 1992 split program, both in geography, frequency
- 1995 single program; single frequency
- state rule terminated but not in effect until EPA approves which cannot happen until the state has an enhanced I/M program in effect
- Use of Anecdotal Information
 - Reason for this committee's being
 - Patterns and Trends
 - A segment of the population seems to be able to sense the difference in fuels using MTBE and those fuels not using MTBE
 - This sense of difference can generally be translated into two categories;
 - 1) Odor which is generally further translated to adverse acute public health symptoms
 - 2) Vehicle Performance which is generally attributed to poorer driveability or fuel economy
 - Since federal RfG I has been introduced with MTBE used on an annual basis the number of complaints has declined. Again, we attribute this to the sense of difference.
 - There has also been a shift in the complaint distribution from public health symptoms to vehicle performance problems

Impacts on Public Health and Environment

This committee has representatives far more knowledgeable that I to discuss the issue of public health risk and it's relation to the usage of MTBE in gasoline. The state however, has participated with EOSHI and others in survey and investigations. Also similar to other states, we are assembling data from air, land and water bodies as part of an internal investigation of the impact of MTBE on the environment.

Impacts of Vehicle Performance and Emissions

The seasonal frequency of changing to 2.7% oxygenated fuel tends to coincide with the refineries switchover to change fuel blend stocks. In wintertime, less powerful blend stocks are used to maximum cold start operations. This along with the higher amount of MTBE which also contain less energy per volume, can significantly reduce mileage. Finally, the change in seasons also is the time of year when pending or intermittent performance problems generally showup in poorly maintained vehicles.

Recent model year vehicles with oxygen sensing feedback systems precisely control air/fuel mix are therefore less reliant on the need for gasoline containing oxygen. Become problematic in controlling CO emissions, MTBE was clearly beneficial in earlier model years but is less so with more recent vehicle technologies.